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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/604,205

07/01/2003

Robert S. Horton

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05/20/2004

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EXAMINER

VU, QUANG D

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/604,205	HORTON ET AL.	
	Examiner	Art Unit	
	Quang D Vu	2811	<i>Am</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07/01/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,415,344 to Jones et al. in view of US Patent No. 6,630,904 to Gustafson et al.

Regarding claim 1, Jones et al. (figures 1-27) teach an integrated circuit chip comprising:

a segmented data line; and

data positioned between segments of the segmented data line,

wherein the data are adapted to simultaneously propagate different data portions along segments of the segmented data line, such that a first segment of the segmented data line carries a second segment of the a first data portion and segmented data line simultaneously carries a second data portion.

Jones et al. differ from the claimed invention by not showing data propagators. However, Gustafson et al. teach data propagators. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Gustafson et al. into the device taught by Jones et al. because it transmits data from one generation to other generation. The combined device shows data propagators positioned between segments of the segmented data line, wherein the data propagators are adapted to

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simultaneously propagate different data portions along segments of the segmented data line, such that a first segment of the segmented data line carries a second segment of the a first data portion and segmented data line simultaneously carries a second data portion.

Regarding claim 2, the combined device shows a collector connected to the segmented data line, wherein the collector is adapted to combined the different data portions into a single data transmission.

Regarding claim 3, the combined device shows an initiator adapted to break up the single data transmission into the different data portions.

Regarding claim 4, the combined device shows the different data portions comprise self-timed data portions.

Regarding claim 5, the combined device shows the segmented data line comprises a single data communication line between a single data source and a single data target.

Regarding claim 6, the combined device shows the segmented data line comprises a data communication network between at least one data source and multiple data targets.

Regarding claim 7, the combined device shows the data propagators are adapted to return a data receipt acknowledgment to a previous data propagator as each of the data propagators forward data to the next data propagator.

Regarding claim 8, the disclosures of Jones et al. and Gustafson et al. are discussed as applied to claim 1 above.

Regarding claim 9, the combined device shows the data transmitter, the data propagator, and the data receiver are synchronized with each other.

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Regarding claim 10, the combined device shows the data break up a data segment received from the data source into a plurality of smaller self-timed data portions.

Regarding claim 11, the combined device shows the data transmitter and the data propagator are adapted to transmit one of the self-timed data portions along each of the segments of the segmented data line at a time, such that each of the segments of the segmented data line simultaneously transmits a different self-timed data portion.

Regarding claim 12, the combined device shows the data reassemble the self-timed data

Regarding claim 13, the combined device shows the data source and the data target are located on a single integrated circuit chip.

Regarding claim 14, the disclosures of Jones et al. and Gustafson et al. are discussed as applied to claim 1 above.

Regarding claim 15, the combined device shows the data transmitter, the data propagator, and the data receiver are synchronized with each other.

Regarding claim 16, the combined device shows the data transmitter is adapted to break up a data segment received from the data source into a plurality of smaller self-timed data portions.

Regarding claim 17, the combined device shows the data transmitter and the data propagator are adapted to transmit one of the self-timed data portions along each of the segments of the segmented data line at a time, such that each of the segments of the segmented data line simultaneously transmits a different self-timed data portion.

Regarding claim 18, the combined device shows the data reassemble the self-timed data receiver it is adapted to portions back into the data segment.

Regarding claim 19, the combined device shows the data source and the data target are located on a single integrated circuit chip.

Regarding claim 20, the disclosures of Jones et al. and Gustafson et al. are discussed as applied to claim 1 above.

Regarding claim 21, the combined device shows breaking a single data transmission into different data portions, wherein the different data portions include the first data portion and the second data portion.

Regarding claim 22, the combined device shows reassembling the different data portions into the single data transmission after all of the different data portions have been individually transmitted along all portions of the segmented data line.

Regarding claim 23, the combined device shows the data propagators are positioned between each segment of the data line, and returning a data receipt acknowledgment to a previous data propagator as data to the next data propagator.

Regarding claim 24, the combined device shows simultaneously propagates different data portions along segment of the segmented data line, such that the second segment of the segmented data line carries the first data portion and the first segment of the segmented data line simultaneously carries the second data portion.

Regarding claim 25, the disclosures of Jones et al. and Gustafson et al. are discussed as applied to claim 1 above.

Regarding claim 26, the combined device shows data propagators are positioned between each segments of the segmented data line, and returning a data receipt acknowledgment to a

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previous data propagator as each of the data propagators forward data to the next data propagator.

Regarding claim 27, the combined device shows simultaneously propagates different data portions along segments of the segmented data line, such that the second segment of the segmented data line carries the first data portion and the first segment of the segmented data line simultaneously carries the second data portion.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang D Vu whose telephone number is 571-272-1667. The examiner can normally be reached on Monday-Friday.

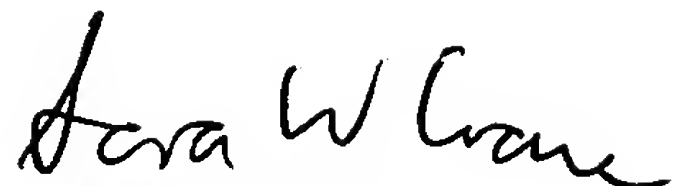
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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qvu
May 14, 2004


Sara Crane
Primary Examiner